

Year 5 - Home Learning Project - Week 12 - 22/06/2020: Perilous Peaks

Daily activities:

English worksheet and tasks Read ' <u>My Cousin is a Time Traveller</u> ' by David Solomons and complete the tasks below.	Maths Complete the White Rose Maths tasks at the end of this document - 1 per day. Ensure you watch the video before you complete the task.	Reading Plus Log into Reading Plus and complete your weekly reading comprehension tasks and vocabulary tasks. <i>Site code: rpendea2</i>	TTRS and Numbots Working on Times Table Rockstars - Can you complete all the set games and challenge somebody in our school? Are you winning in the current Battle of the Bands?	PE session Join Joe Wickes live every Mon, Weds and Fri morning @ 9:00am or access it any time throughout the day.	A Topic activity from the choices below. Try to complete all of the tasks and send your work to your teacher.
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This week's themed learning is based around our new topic of **Perilous Peaks**.

Geography: Just how high is high?

There are at least 109 mountains on Earth with elevations greater than 7,200 metres above sea level! The vast majority of these mountains are located on the edge of the Indian and Eurasian continental plates.

Research the 7 highest peaks in world:

- **Mount Everest**
- **Aconcagua**
- **Mount McKinley**
- **Kilimanjaro**
- **Mont Blanc**
- **Vinson Massif**
- **Mount Kosciusko**



Find out how high each peak is in **m** and where in the world they are located.

After that, find out what the highest mountains are in the **UK** and **locate them** on the UK map below. **Label** on the map the mountain's **name**, **height in m** and **place** where they are located.

Art: Landscape - Post Impressionism

Post impressionism is an art movement that developed in the 1890s. This kind of art uses 'real life' subject matters such as landscapes, however the artists demonstrate their emotions and use unnatural colours in some ways.

Vincent Van Gogh created a piece of post impressionism called Wheatfield with Mountains in 1889. **Take a look at** this video to explore the type of art more:

https://www.youtube.com/watch?v=eV_ZntDBIW4

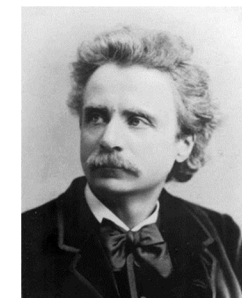


Over the coming weeks you are going to be producing a piece of **post impressionism** of a **landscape**. This week we would like you to explore the type of art and pick a mountain landscape which you would like to depict. Choose one of your mountains you have researched and explore its landscape. **What colours are there? What shapes can you see? How do you feel looking at that particular landscape?**

Music: In the Hall of the Mountain King

Last week you we listened to 'In the Hall of the Mountain King' by *Greig*. This week we're going to look a bit more closely at the composer. (Information below)

Listen again to the piece of music on [BBC ten pieces website](#). Edvard Grieg knew how to tell a story through music. Think about how he composed his music. Close your eyes and listen to the music. How did he make it sound as if the trolls were chasing Peer? What did he do to the speed of the music? Think about the instruments he chose to create his scene. What were they? If you were the composer, would you do this differently? When you have listened to the piece complete the task below.



Science: Famous Scientist - Dr. Jane Goodall



Dr Jane Goodall is a British ethologist (someone who studies animal behaviour) and conservationist. She is famous for her world expertise on chimpanzees which she has studied in the wild for over 60 years.

Task 1: The Aimhi website has a fantastic live interview with Jane which you can watch [here](#). The interview will explore why Dr. Goodall chose her career, how she studied chimpanzees for years and much more. If you had a chance to ask her a question what would it be?

Task 2: Read through the information about Jane found below. Then complete the fact or fiction page.

Task 3: Read through the information about endangered chimpanzees and complete an advert to fundraise for the Jane Goodall charity (there's a prompt sheet below to help you with ideas and vocabulary)

Computing: Go on a photo walk



Pick a colour or letter of the day and take photos of things that are that colour or start with that letter. Then put them all together in a collage or video. Try to make a rainbow or complete the alphabet! Can you challenge yourself and add audio too?



English: Grammar

Complete the 'Lockdown SPaG-hetti' grammar sheet below to recap on nouns, adjectives, clauses, modal verbs and editing.

English: Writing

Debate whether graffiti is art or just a mess! Once you have Developed opinions and points of view for both sides, write a discussion text about it. Look at some of the work by the graffiti artist 'Banksy' to help your discussion. There are also further questions below to consider.



Sticky Knowledge (remembering our previous learning):

History: Religion in Ancient Greece

During our ancient Greek Topic we learnt that the people of Greece believed in many gods and goddesses. For example the citizens of Athens prayed to their goddess Athena for guidance and protection. Recap on the different Gods and Goddesses on [BBC National Geographic](#) and [History for Kids](#) then choose one to write an information poster about. You should include a clear title, an introductory paragraph about them, a picture and some key facts.



Geography: Layers of the Rainforest



Can you label the different layers of the Rainforest before time runs out? Try your luck at this [Purple Mash Game](#).

Science: Explorify Odd One Out



Look at the three images above of a tooth, a heart and intestines. Can you make a list of as many similarities and differences between them as you can? For example, think about appearance, what they do (their function in our bodies) and where they might be found in our bodies.

If you had to choose one as the odd one out which would it be? Explain why giving a clear reason.

(If you're stuck and not sure what these parts do in our bodies take a look below at some extra information for sticky knowledge)

Website links mentioned above:

<http://www.primaryhomeworkhelp.co.uk/mountains/tallest.htm> - Tallest mountain information

https://www.youtube.com/watch?v=eV_ZntDBIW4 - Post impressionism art

<https://www.bbc.co.uk/teach/ten-pieces/KS2-edvard-grieg-in-the-hall-of-the-mountain-king-from-peer-gynt/z7nf3k7> - In the Hall of the Mountain King

<https://www.aimhi.co/paststreams> - AimHi website Jane Goodall interview

<https://www.bbc.co.uk/bitesize/topics/z87tn39/articles/zgt7mp3> - BBC Greek Gods

<https://www.natgeokids.com/uk/discover/history/greece/greek-gods/> - National Geographic Greek Gods

<https://www.historyforkids.net/ancient-greek-gods.html> - History for Kids Greek Gods





Edvard Grieg

In the Hall of the Mountain King

from *Peer Gynt Suite No. 1*

Edvard Grieg

Born: June 15, 1843

Died: September 4, 1907

Edvard Grieg was born in Bergen, Norway. His first teacher was his mother. She was a wonderful pianist. Because Edvard was also a very good musician, at the age of 15 he was sent to study at the Leipzig Conservatory in Germany. After that, he traveled to Denmark. There, Grieg met another Norwegian composer who taught him about Norwegian folk music.

Grieg began performing as a pianist all over Europe, but every summer he went home to his cottage in Norway to compose. Grieg soon became the leader of a group of artists who wanted Norwegian music, art and theater to become more popular. Many of his songs are written to sound like folk songs

from his home country. He also wrote a lot of music for the piano.

Grieg is best known for the incidental music he wrote for Henrik Ibsen's play, *Peer Gynt*. Incidental music provides background or atmosphere for the action in a play. *Peer Gynt* is a tale about one man's epic journey to the four corners of the globe. Grieg's "In the Hall of the Mountain King" describes Peer Gynt's adventure in the underground Kingdom of the Trolls. Can you hear the trolls creeping up on Peer? They are coming faster and faster! Whew...luckily, Peer Gynt gets away from the trolls by the skin of his teeth.

You Choose

Pretend you are Edvard Grieg and want to tell a story with music. What instrument would you match with the characters below? You can use an instrument from this list or think of one of your own.

Triangle Flute Violin Glockenspiel Cymbals Trumpet Viola
Bass Drum Tuba Piano Trombone Chimes Clarinet Oboe



Science Task 2 information:

Who is Jane Goodall?



Jane Goodall is a British scientist who has studied chimpanzees for many years.

She is considered to be the world expert on chimpanzees and their behaviour.

Goodall was born in 1934 in London. When she was a child, her father gave her a chimpanzee toy, which began her lifelong love of animals.

Jane's Work With Chimpanzees



In 1960, Goodall was appointed as a chimpanzee researcher by a famous archaeologist called Louis Leakey. Leakey sent her to Gombe Stream National Park, in what is now called Tanzania in Africa, to observe the chimpanzee troop living there.

Tanzania was known as Tanganyika when Jane Goodall went to study the chimpanzees there.

Jane's Work With Chimpanzees

Jane began to study the Kasakela chimpanzee community. She used unusual methods, such as giving the chimpanzees names. At that time, scientists working with animals would use numbers to identify the animals, so they didn't get too attached. Goodall's methods allowed her to observe the chimpanzees' personalities and emotions.



Observing patiently over a number of years, Goodall won the trust of the chimpanzees, and noticed new and interesting things about the chimpanzees' behaviour.

Jane's Work With Chimpanzees



She found that the chimpanzees had strong family bonds that would last for the whole of the chimpanzees' lives. She observed family members hugging, kissing, patting each other on the back, and even tickling each other!

Goodall became familiar with several families of chimpanzees, and watched new family members be born. She saw the life cycle of the chimpanzees in action.

Science Task 2 Fact or fiction: Draw lines from the statements on the left about Jane Goodall to 'Fact or Fiction'. Then add your own statements in the two blank boxes. Ask someone in your family to decide if your statements are fact or fiction.

Jane Goodall is an African scientist who studied chimpanzees.

Goodall studied chimpanzees living in the Gombe National Park in Tanzania.

Goodall used numbers to identify the chimpanzees that she studied.

Fact

Fiction

Her interest in animals began in childhood started when her father gave her a toy chimpanzee.

She found out that the chimpanzees had very strong family bonds.

Chimpanzees in Danger

100 years ago there were around 1 million chimpanzees in Africa. Scientists believe that there are now fewer than 200 000 left in the wild. The species has already disappeared from 4 African countries, and chimpanzees are nearing extinction in several other countries.



What do you think is causing them to be endangered?

Science Task 3:

Chimpanzees in Danger

There are many threats to the survival of the chimpanzee species:

Poachers hunt and kill chimpanzees for bush meat, which is sold to people living in cities.



Wars and conflict in the areas in which the chimpanzees live also cause habitat loss and can result in deaths of chimpanzees.

Baby chimpanzees are taken illegally to be exotic pets.

Chimpanzees lose their habitats when forests are cut down for timber or to clear space for farming.

Diseases can affect chimpanzees, and can drastically reduce their population.

All these threats prevent the chimpanzee life cycle from continuing in its normal way. This will eventually lead to the species becoming extinct.

Asking for Help

Chimpanzees do still live in Tanzania, and the Gombe Stream chimpanzees are still living in the area where they were originally observed by Jane Goodall.

The Jane Goodall Institute was set up by Goodall to protect the wild chimpanzees that are left in Africa.

The Institute supports sanctuaries and public education programmes to protect chimpanzees in the wild.

It raises money for these programmes and developments through donations from the public.



Asking for Help



Imagine that you have been asked to create an advert to ask people to help the Jane Goodall Institute save endangered chimpanzees by donating some money.

In your advert, you should tell people about Jane Goodall and why chimpanzees are endangered.

You can choose what your advert should look like. For example you could design a poster or leaflet. Use the Advert Activity Sheet to plan your ideas.

Science Task 3: Advert planning

What do you want people to know about Jane Goodall? Think about who she is, where she worked and what she observed.

What will you tell people about chimpanzees and why they are endangered? Think about how they live and the threats they face.

How will you ask people to donate money? Think about words that will persuade people to help.

Use these words and phrases to help you.

British scientist world expert Gombe Tanzania Africa names personalities
family chimpanzees species extinct endangered forests meat pets life cycle

Science Sticky Knowledge: Explorify Odd One Out - additional information.

The images are a tooth, a heart and intestines.

Though teeth aren't organs they are important for digestion. Teeth start the process of breaking up food into smaller pieces. The tooth pictured is a molar, which helps chew and grind up food. These small pieces of food can be swallowed so they can pass down the oesophagus and enter the stomach.

The heart pumps blood around the body, which carries the nutrients that are produced during digestion to the places where they are needed e.g. for energy and building new tissues. It is part of the circulatory system.

The intestines are made up of the small and large intestines and form part of the digestive system. During digestion, food is broken up into soluble nutrients and moves into the blood through the walls of the small intestine. In the large intestine, water is removed from the remaining food.

English: Writing



Art or just a mess?

Debate whether graffiti is art or just a mess! Once you have developed opinions and points of view for both sides, write a discussion text about it. Look at some of the work by the graffiti artist 'Banksy' to help your discussion.

Consider the following questions:

- Is graffiti 'art' or just a mess?
- Who does graffiti and why do they do it?
- If you saw someone doing graffiti near your home, how would you feel about it and why?
- When and where do you think most graffiti is done?
- Does the location of the graffiti determine whether it is considered art or vandalism?
- Can you think of a time when graffiti could be considered antisocial?
- Who was the first graffiti artist to be considered an 'artist'?
- How might the materials used to perform graffiti have changed over history?
- What are the different types of graffiti?
- How have the types of graffiti have changed throughout history?

English Home Learning Y5

22/06/2020 - Introduction.

Each week you will receive a set of English tasks. You should aim to complete one each day. Spending about 30 minutes on reading, 45 minutes on writing and at least 20 minutes on grammar and spelling.

It is fine for you to ask for help from parents, siblings or your teacher through teams.

During the week you will:

Colour the stars when you think you have achieved this.

If you love reading and writing and want more of a challenge you can keep writing stories based on your own ideas or other books you have read.

Or explore

www.lovereadings4kids.co.uk or www.newsela.com to find more extracts to read and write about.

Week 8

I have answered the questions around the text.

I have written a detailed story.

I have read and answered the grammar questions carefully.

I have practised the spellings and used some in sentences.



Monday 22nd June 2020

Year 5 - My Cousin is a Time Traveller - Chapter 1 - Day 1

Reading

On page 4:

1. Why does Luke say he 'liked living in a world with Zack'?
2. Why do you think Luke would never tell Zack to his face that he liked living in a world with him?

On page 5:

1. What time did Zack return home after the 'emergency'?
2. Why wasn't Zack needed?

On page 6:

1. The word 'unease' is closest in meaning to:
a) happy b) sad c) nervous d) excited

Tuesday 23rd June 2020

Year 5 - My Cousin is a Time Traveller - Chapter 1 - Day 2

Writing

Write a story about a superhero mission (aim for at least 2 paragraphs)

What is your superhero's name?

What is their superpower?

Who or what do they rescue?

Which villain do they stop?

Wednesday 24th June 2020

Year 5 - My Cousin is a Time Traveller - Chapter 1 - Day 3

Grammar

Insert a semi-colon into this sentence.

It was a beautiful day I felt so lucky.

Complete this sentence.

I climbed the tree while

Insert a pair of commas in the correct place in the sentence below.

I enjoy sitting in my bedroom even though it is quite small and listening to music.

Insert full stops and capital letters in the passage below so it is punctuated correctly.

Declan has always been fascinated by animals he has read many books about exotic creatures jellyfish interest him the most and he would like to study them when he is older

Circle the conjunction in each sentence.

We like to eat popcorn when we go to the cinema.

Although my sister likes salted popcorn, I prefer sweet popcorn.

Thursday 25th June 2020

Year 5 - My Cousin is a Time Traveller - Chapter 1 - Day 4

Spelling

Practise each word. Choose two and write their definitions.

Choose two to write in sentences.

dictionary

embarrass

equip (-ped, -ment)

exaggerate

disastrous

environment

especially

existence

explanation

excellent

DAVID SOLOMONS



MY COUSIN IS A TIME TRAVELLER

AND MY
TOASTER IS
TAKING
OVER
THE
WORLD...

BY THE
WINNER OF THE
WATERSTONES
CHILDREN'S
BOOK PRIZE



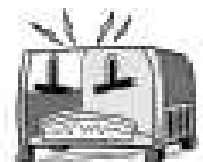
**nosy
crow**

1

THAT'S THE WAY THE WOOKIE CRUMBLES



I leaned on my bedroom windowsill and gazed out at the searchlight's vivid beam reaching up from the roof of the Civic Centre, illuminating the underside of the clouds with the letters "SL". They stood for Star Lad. To the wider world he was a superhero, but I knew him as Zack Parker, my big brother. So far, during his short career, he'd saved Earth from, in order: a giant asteroid and a comic-book-store-owning supervillain; alien invaders disguised as my gym teacher; a world-eating Top Trump card; my Evil Twin; and a particularly annoying brain-in-a-jar and her sister. Those were his big, end-of-the-world missions, but in his role as



Earth's saviour he also carried out a host of lesser duties in between. He was out there now, no doubt rescuing some small child from a rampaging robot, or catching a falling plane, or rounding up some criminal kingpin and his henchmen.

There was a distant rumble and the horizon burst into light, the explosion sending bright-orange flames into the sky to silhouette the rooftops of our home town of Bromley.

Had to be Zack.

I might learn the details of tonight's adventure when he returned later, but in all likelihood the only thing I'd get from him would be a grunt as he pushed past me to the fridge for a snack. He was always hungry after a mission. That was his style: peckish after, and reluctant before. He'd never wanted the responsibility of being a superhero, not from that first moment when a purple-caped, egg-headed alien called Zorbon the Decider had chosen him to save the world. Zack couldn't see the point of having powers and it was never far from his thoughts. Earlier that evening he'd brought it up for the gazillionth time.

"And another thing," he'd said as we washed up the dinner dishes together. "Superheroes are expensive."

"But you don't get paid," I reminded him. "You're a

free service. Like that antivirus software Dad uses."

"Yes, but there are costs associated with my exploits. Have you read the council's latest annual report?"

"Is this a trick question?"

He scrubbed vigorously at the bottom of a pot. "It's all in there. Itemised. The clean-up bill from just one interdimensional monster attack means they've had to find savings elsewhere in the budget. Did you know we're down to a fortnightly bin collection?"

I did not. And I didn't care.

"That's not all." He was getting into his stride. "I am just one hero, which means I can only deal with one incident at a time."

"But you're not alone. You've got Dark Flutter." That was the superhero identity of our neighbour Lara Lee. She too had been turned into a superhero by Zorbon, but her powers were rather more limited than Zack's. Essentially, she could talk to fluffy animals.

"Fine, so there are two of us. Great." He shrugged. "So let's take firefighting, just as an example. Think how many more fires twenty new firemen could deal with compared with just two superheroes. See, we're expensive and inefficient."

Studying the blaze on the horizon I caught a whiff of burning in the night air and I thought about what

Zack had said. Were superheroes a waste of money? But without Star Lad, Earth would've been flattened by a giant asteroid, invaded by aliens, swallowed whole, or ripped apart by quantum forces. That stuff was more important than a weekly bin collection. And anyway, I liked living in a world with superheroes.

I yawned. My best friend, Serge, says that I sound like an exhausted Wookiee when I yawn. It had been a long day; I'd expended a great deal of effort in avoiding a significant amount of maths and English homework. Before I went to bed I made sure to leave the window wide open for Zack to fly through when he did eventually come home. In that regard he was a bit like Peter Pan, but without the green tights and the curious attachment to fairies. Like the rest of the world, I felt safe with him out there. But unlike them, I realised as I rested my head on my Spider-Man pillow, I felt safe with him in here too. And as I drifted off into a superhero dream-filled sleep it struck me, not for the first time, that I liked living in a world with Zack. Not that I'd ever admit it to his face.

"Wake up."

I was flying in my dreams when Zack's voice brought me down to earth like a well-aimed kryptonite-tipped

arrow. I sat up in bed, startled by the urgency of his tone. My eyes slowly adjusted to the fuzzy dark. The streetlight outside my still-open window splashed an orange glow across the bedroom floor where I saw Zack pacing anxiously. He was wearing his Star Lad costume and his cape flicked out as he turned. His mask was pushed off his face and rested against his forehead. I glanced at my Green Lantern alarm clock on the bedside table. Three a.m.

"Must have been some night," I said. "You want to tell me about it?"

He peeled off the cape and folded it neatly into a square, tucking it under one arm. "False alarm. They didn't need me."

"But what about the explosion and the fire?"

"Someone was burning rubbish in their garden and it got out of control." He removed his mask. "The fire brigade dealt with it."

I propped myself up on my elbows. "So what have you been doing all this time?"

"Thinking," he said. I didn't like the way he said it. "I sent a message to Zorbon using my telepathic power. I've asked him to come over tomorrow."

That was weird. Usually Zorbon showed up unannounced with a dire prophecy about the end of the



world, which inevitably led to a mission for Star Lad and the rest of us. To my knowledge this was the first time that Zack had called him. I felt a creeping sense of unease.

"Luke, I've made a decision." Zack paused, and by the light of the streetlamp I could see his face knot up with concern. "I'm getting rid of my superpowers."

Year 5 Home Learning – Maths Lesson 1: Multiply mixed numbers by an integer - Monday 22nd June 2020

Please watch the video first: <https://vimeo.com/420244296>

Multiply mixed numbers by integers



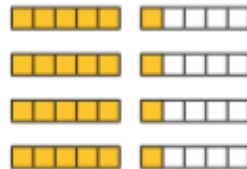
1 Complete the calculations.

a) $4 \times 1\frac{1}{5}$

$4 \times 1 = \square$

$4 \times \frac{1}{5} = \square$

$\square + \square = \square$



b) $4 \times 2\frac{1}{5}$

$\square \times 2 = \square$

$4 \times \square = \square$

$\square + \square = \square$

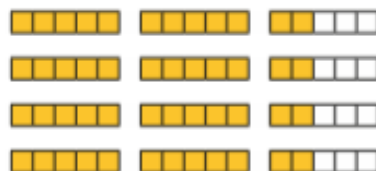


c) $4 \times 2\frac{2}{5}$

$\square \times \square = \square$

$4 \times \square = \square = \square$

$\square + \square = \square$



d) $4 \times 2\frac{2}{3}$

$\square \times \square = \square$

$\square \times \square = \square = \square$

$\square + \square = \square$



2 Complete the multiplications.

a) $3 \times 8\frac{2}{7} = \square$

d) $4 \times 6\frac{3}{19} = \square$

b) $2 \times 12\frac{2}{11} = \square$

e) $2\frac{2}{25} \times 12 = \square$

c) $6\frac{2}{11} \times 4 = \square$

f) $3\frac{1}{15} \times 8 = \square$

What is the same and what is different about your answers?

3 One bag of potatoes weighs $1\frac{3}{4}$ kg.

How much do 5 bags of potatoes weigh?



kg

4 Complete the calculations.

a) $5 \times 2\frac{2}{3} = 10 + \frac{10}{3} = \square$

b) $4\frac{3}{7} \times 5 = 20 + \square = \square$

c) $8 \times 2\frac{5}{12} = \square + \square = \square$

d) $7 \times 3\frac{1}{5} = \square + \square = \square$

e) $4\frac{2}{9} \times 8 = \square + \square = \square$

f) $11 \times 4\frac{3}{10} = \square + \square = \square$

5

$5 \times 3\frac{2}{11}$ is equal to
 $3 \times 5\frac{2}{11}$

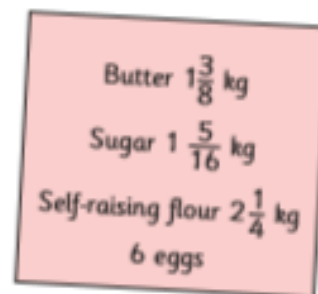


Do you agree with Ron? _____

Explain why.

6 Eva drinks $3\frac{1}{3}$ litres of water a day.
How many litres of water does she drink in a week?

7 Here is a recipe for a birthday cake.



a) How much flour is needed for 3 birthday cakes?

 kg

b) Dora makes 4 birthday cakes.
How much more butter does she use than sugar?

 kg

Year 5 Home Learning – Maths Lesson 2: Fraction of amount - Tuesday 23rd June 2020

Please watch the video first: <https://vimeo.com/420244399>

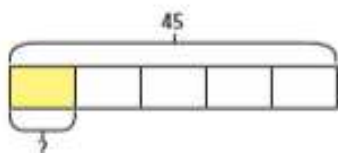
Fractions of an amount



1 Annie and Mo are finding fractions of amounts.

a) Annie is trying to find $\frac{1}{5}$ of 45

She draws this bar model.

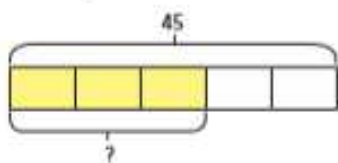


How does the bar model represent the calculation?

What is $\frac{1}{5}$ of 45?



b) Mo is trying to find $\frac{3}{5}$ of 45



How does the bar model represent the calculation?

What is $\frac{3}{5}$ of 45?



c) What is the same and what is different about Mo and Annie's questions?



2 Complete the calculations.

a) $\frac{1}{3}$ of 27 = b) $\frac{1}{3}$ of 72 = c) $\frac{1}{3}$ of 90 =

$\frac{2}{3}$ of 27 = $\frac{1}{6}$ of 72 = $\frac{2}{6}$ of 90 =

$\frac{3}{3}$ of 27 = $\frac{1}{12}$ of 72 = $\frac{3}{9}$ of 90 =

What patterns do you notice?

3 Match the calculations to the correct amounts.

$\frac{5}{8}$ of 48

32

$\frac{2}{3}$ of 48

40

$\frac{5}{6}$ of 48

30

$\frac{3}{4}$ of 48

36

4 Write $<$, $>$ or $=$ to compare the calculations.

a) $\frac{5}{7}$ of 56 $\frac{5}{8}$ of 56 c) $\frac{2}{3}$ of 63 $\frac{5}{8}$ of 64

b) $\frac{4}{7}$ of 56 $\frac{5}{8}$ of 56 d) $\frac{7}{10}$ of 350 $\frac{5}{7}$ of 350

5 165 children and adults go on a school trip.
Two thirds of the people are children.

a) How many adults are on the school trip?

b) $\frac{3}{5}$ of the children are boys.

How many boys are on the school trip?

c) $\frac{7}{10}$ of the children have an apple for lunch.





How many children do not have an apple for lunch?

6 Tick the odd one out.

$\frac{3}{4}$ of 80	$\frac{3}{8}$ of 160	$\frac{2}{3}$ of 90	$\frac{3}{4}$ of 100
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Explain your choice.

7 320 people were asked about their favourite flavour of ice cream.
Here is a pictogram showing the results.

vanilla	
strawberry	
chocolate	
mint choc chip	

a) How many people chose mint choc chip?

b) How many more people chose vanilla than chocolate?

Fractions as operators

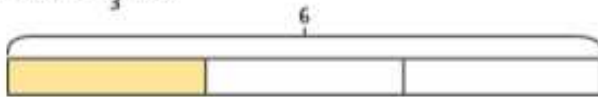


1 a) Work out $\frac{1}{3} \times 6$



$$\frac{1}{3} \times 6 = \frac{\square}{3} = \square$$

b) Work out $\frac{1}{3}$ of 6



$$\frac{1}{3} \text{ of } 6 = \square \div \square = \square$$

c) What is the same about these calculations?

d) Work out $\frac{2}{3}$ of 6

$$\frac{2}{3} \text{ of } 6 = \square \div \square \times 2 = \square$$

e) Work out $\frac{2}{3} \times 6$



$$\frac{2}{3} \times 6 = \square = \square$$



2 Complete the calculations.

a) $\frac{1}{3} \times 12 = \square$

$\frac{1}{3}$ of 12 = \square

b) $12 \times \frac{1}{4} = \square$

$\frac{1}{4}$ of 12 = \square

c) $12 \times \frac{2}{3} = \square$

$\frac{2}{3}$ of 12 = \square

d) $\frac{3}{4} \times 12 = \square$

$\frac{3}{4}$ of 12 = \square

What do you notice?

3 Tick the calculation in each pair that is easier to work out.

a) $\frac{1}{5} \times 7$

$\frac{1}{5}$ of 7

b) $\frac{1}{5} \times 10$

$\frac{1}{5}$ of 10

c) $\frac{3}{5} \times 10$

$\frac{3}{5}$ of 10

d) $\frac{3}{10} \times 5$

$\frac{3}{10}$ of 5

Compare answers with a partner.

4 Complete the calculations.

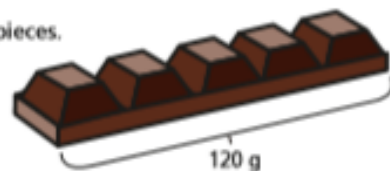
a) $\frac{5}{6} \times 12 = \frac{\square}{\square}$ of 12 =

b) $\frac{3}{4} \times 24 = \frac{\square}{\square}$ of 24 =

c) $\frac{2}{7} \times \square = \frac{\square}{\square}$ of 28 =

d) $\frac{\square}{\square} \times 45 = \frac{4}{5}$ of =

5 A bar of chocolate has 5 equal pieces.
The whole bar weighs 120g.



How much do three pieces weigh?

a) Write two calculations that will give the answer to the problem.

b) Work out the answer.

Three pieces of chocolate weigh

6 Teddy and Annie are working out $\frac{3}{7} \times 42$

a)

I will multiply 42 by $\frac{3}{7}$



Teddy

Use Teddy's method to work out the calculation.

b)



Annie

I will find $\frac{3}{7}$ of 42

Use Annie's method to work out the calculation.

c) Whose method do you prefer? _____

Explain why.

d) When is it easier to find fractions of amounts rather than multiply fractions?

Give some examples for each method.

Multiplying decimals by 10, 100 and 1,000



1 Complete the multiplications.

a)

H	T	O	Tths	Hths
		3	7	

 $3.7 \times 10 =$

b)

H	T	O	Tths	Hths
	1	4	5	

 $14.5 \times 10 =$

c)

H	T	O	Tths	Hths
		1	5	8

 $1.58 \times 10 =$

d)

H	T	O	Tths	Hths
	1	3	0	6

 $13.06 \times 10 =$

What do you notice when you multiply a number by 10?



2 Complete the multiplications.

a) $1.7 \times 10 =$ d) $13.4 \times 10 =$

b) $1.75 \times 10 =$ e) $10 \times 13.04 =$

c) $1.73 \times 10 =$ f) $130.4 \times 10 =$

3 Complete the multiplications.

a)

H	T	O	Tths	Hths
		4	1	

 $4.1 \times 100 =$

b)

H	T	O	Tths	Hths
		4	1	5

 $4.15 \times 100 =$

c)

H	T	O	Tths	Hths
	1	4	5	

 $14.5 \times 100 =$

d)

H	T	O	Tths	Hths
		4	0	5

 $4.05 \times 100 =$

What do you notice when you multiply a number by 100?

4 Complete the calculations.

a) $7.2 \times 100 =$ d) $1.89 \times 100 =$

b) $3.4 \times 100 =$ e) $73.57 \times 100 =$

c) $19.5 \times 100 =$ f) $1.317 \times 100 =$

- 5 Amir has multiplied 3.8 by 1,000



The answer is 3.8000

- a) What mistake has Amir made?

- b) Work out the correct answer.

$3.8 \times 1,000 = \boxed{}$

- 6 Complete the multiplications.

a) $4.7 \times 10 = \boxed{}$

c) $5.84 \times 10 = \boxed{}$

$4.7 \times 100 = \boxed{}$

$5.84 \times 100 = \boxed{}$

$4.7 \times 1,000 = \boxed{}$

$5.84 \times 1,000 = \boxed{}$

b) $19.3 \times 10 = \boxed{}$

d) $18.06 \times 10 = \boxed{}$

$19.3 \times 100 = \boxed{}$

$100 \times 18.06 = \boxed{}$

$1,000 \times 19.3 = \boxed{}$

$18.06 \times 1,000 = \boxed{}$

How did you work out the answers? Talk to a partner.



- 7 Complete the calculations.

a) $7.7 \times \boxed{} = 770$

e) $8.032 \times \boxed{} = 80.32$

b) $\boxed{} \times 10 = 1,950$

f) $\boxed{} \times 18.3 = 1,830$

c) $11.5 \times \boxed{} = 115$

g) $195.32 \times \boxed{} = 1,953.2$

d) $\boxed{} \times 11.5 = 11,500$

h) $\boxed{} \times 1,000 = 7,200$

- 8 Tommy is 1.4 m tall.

A tree is 10 times as tall as Tommy.

A building is 100 times as tall as Tommy.

- a) How tall is the tree?

 m

- b) How much taller is the building than the tree?

 m

- 9 Match the multiplications to the descriptions.

$\times 10 \times 10$

multiply by 10

$\times 10 \times 10 \times 10$

multiply by 100

$\times 100 \times 10$

$\times 10 \times 100$

$\times 10 \times 1$

multiply by 1,000

Dividing decimals by 10, 100 and 1,000



1 Complete the divisions.

a)

H	T	O	Tths	Hths
		5		

 $5 \div 10 = \square$

b)

H	T	O	Tths	Hths
	1	5		

 $15 \div 10 = \square$

c)

H	T	O	Tths	Hths
		3	8	

 $3.8 \div 10 = \square$

d)

H	T	O	Tths	Hths
	1	3	8	

 $13.8 \div 10 = \square$

What do you notice when you divide a number by 10?

2 Complete the calculations.

- a) $7 \div 10 = \square$ d) $16 \div 10 = \square$
 b) $7.8 \div 10 = \square$ e) $16.4 \div 10 = \square$
 c) $7.86 \div 10 = \square$ f) $16.48 \div 10 = \square$

3 Complete the divisions.

a)

H	T	O	Tths	Hths	Thths
	1	7			

 $17 \div 100 = \square$

b)

H	T	O	Tths	Hths	Thths
		9	4		

 $9.4 \div 100 = \square$

d)

H	T	O	Tths	Hths	Thths
2	7	6			

 $276 \div 100 = \square$

d)

H	T	O	Tths	Hths	Thths
	3	2	5		

 $32.5 \div 100 = \square$

What do you notice when you divide a number by 100?

4 Complete the divisions.

- a) $7 \div 100 = \square$ b) $109 \div 100 = \square$
 $7.2 \div 100 = \square$ $10.9 \div 100 = \square$
 $7.25 \div 100 = \square$ $10.95 \div 100 = \square$



- 5 Use a place value chart to work out $136 \div 1,000$

H	T	O	Tths	Hths	Thths
1	3	6			

Complete the calculation.

$$136 \div 1,000 = \boxed{}$$

Talk to a partner about your method.

- 6 Use your knowledge of measure to work out the answers.

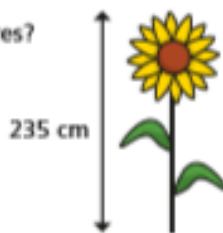
- a) What is the mass of the box in kilograms?

$$\boxed{} \div \boxed{} = \boxed{}$$



- b) What is the height of the sunflower in metres?

$$\boxed{} \div \boxed{} = \boxed{}$$



- c) What is the amount of juice in litres?

$$\boxed{} \div \boxed{} = \boxed{}$$



- 7 Complete the calculations.

a) $147 \div 10 = \boxed{}$

c) $3,200 \div 10 = \boxed{}$

$147 \div 100 = \boxed{}$

$3,200 \div 100 = \boxed{}$

$147 \div 1,000 = \boxed{}$

$3,200 \div 1,000 = \boxed{}$

b) $21 \div 10 = \boxed{}$

d) $5,006 \div 10 = \boxed{}$

$21 \div 100 = \boxed{}$

$5,006 \div 100 = \boxed{}$

$21 \div 1,000 = \boxed{}$

$5,006 \div 1,000 = \boxed{}$

- 8 Complete the divisions.

a) $83 \div \boxed{} = 0.83$

e) $1,799 \div \boxed{} = 17.99$

b) $\boxed{} \div 10 = 0.95$

f) $\boxed{} \div 100 = 11.8$

c) $\boxed{} \div 10 = 3.9$

g) $178 \div \boxed{} = 17.8$

d) $68 \div \boxed{} = 0.068$

h) $3.18 \div \boxed{} = 0.318$